

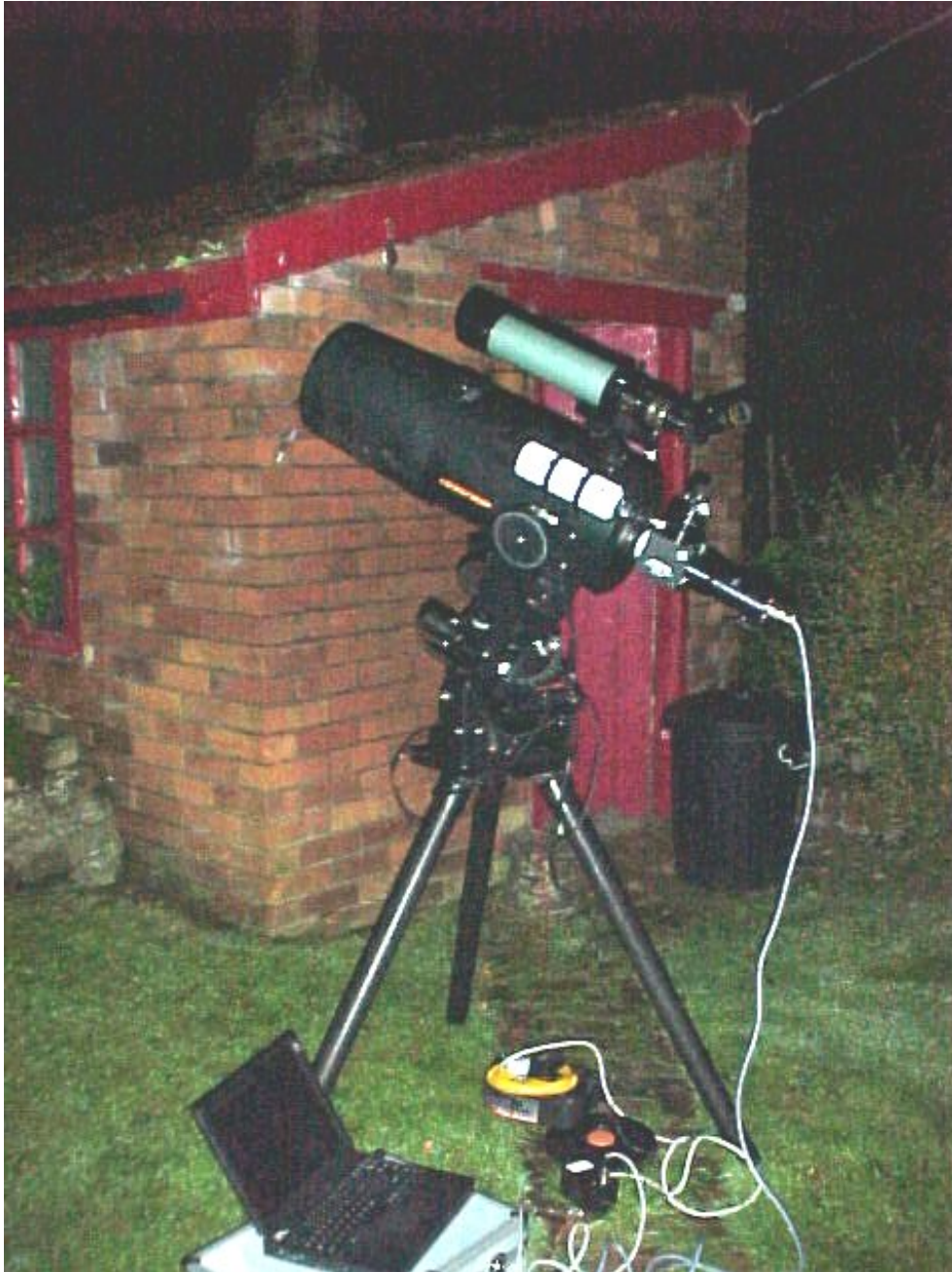
A low cost home observatory

This account shows how a small outbuilding can be easily converted into an observatory, greatly improving the comfort and performance of observing sessions.

By Keith Venables. FRAS

UK perspective

- A climate probably most similar to Seattle
 - Got to keep the rain out!
- Average 1 out of 6 nights useable
 - Got to make the most of the few clear nights
- Best nights are in coldest part of winter.
 - Comfort is important
- If you don't like the weather wait 10 minutes!
 - Be prepared to move quickly!
- Relative Humidity usually >80%
 - Damp will get into equipment.
- 54 million people in an area the size of West Texas
 - Light pollution is a **big** problem.



Before

- 40 minutes to set-up.
- 30 minutes to clear away.
- Good chance of clouding in-between!
- Frequent polar alignment, and re-aligning and re-focussing CCD took valuable observing time.
- PC and other kit prone to dew and damage.
- Exposed to wind & lights

After



Aerial View



DSC control box

tv monitor

pc monitor

TV Ranger used for wide field images

CCD tv used as finder & guider

CCD flip box

5 filter slide

MX5 CCD

Electric Focus

Aerial View

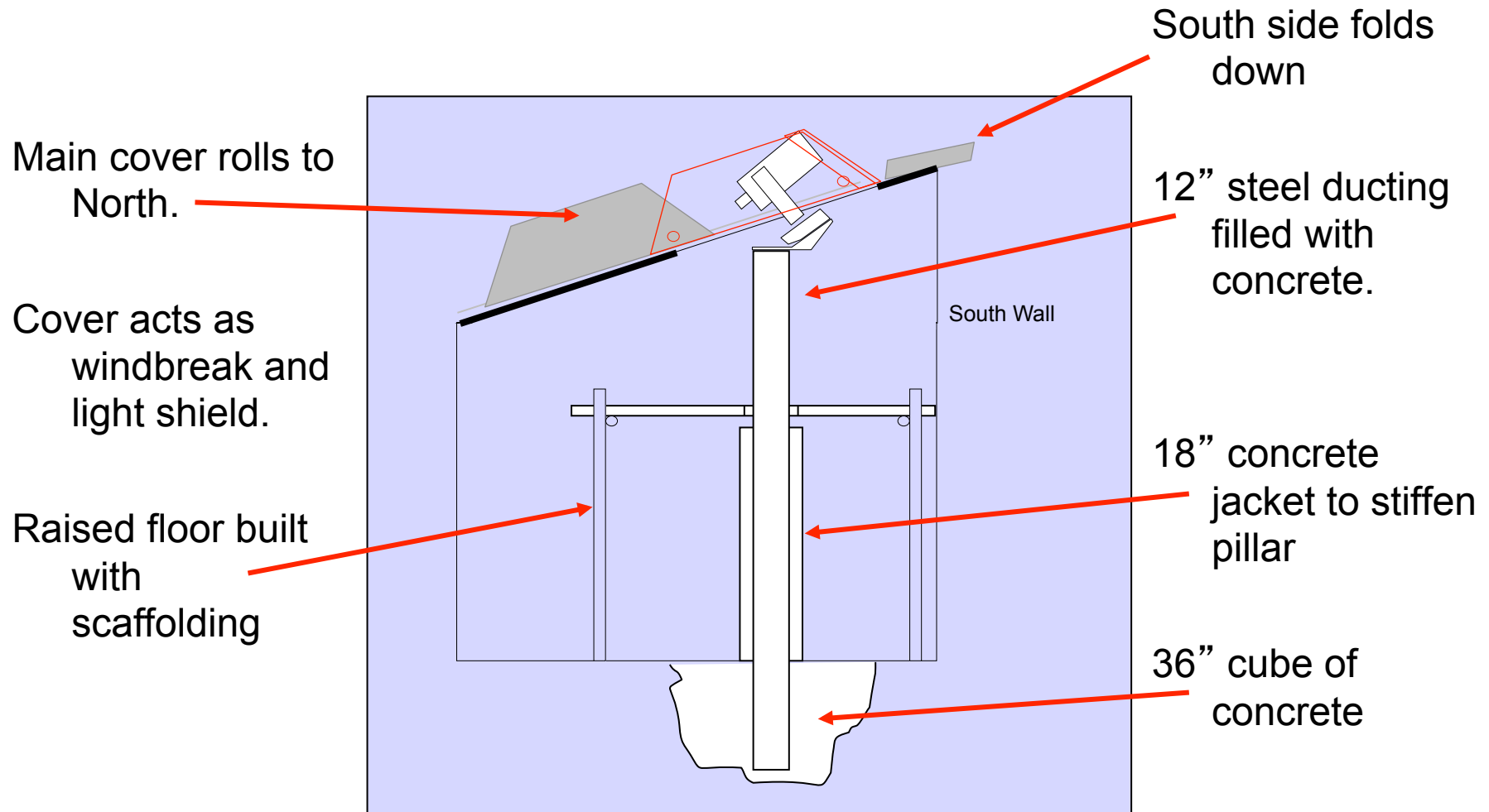
showing roll-off roof



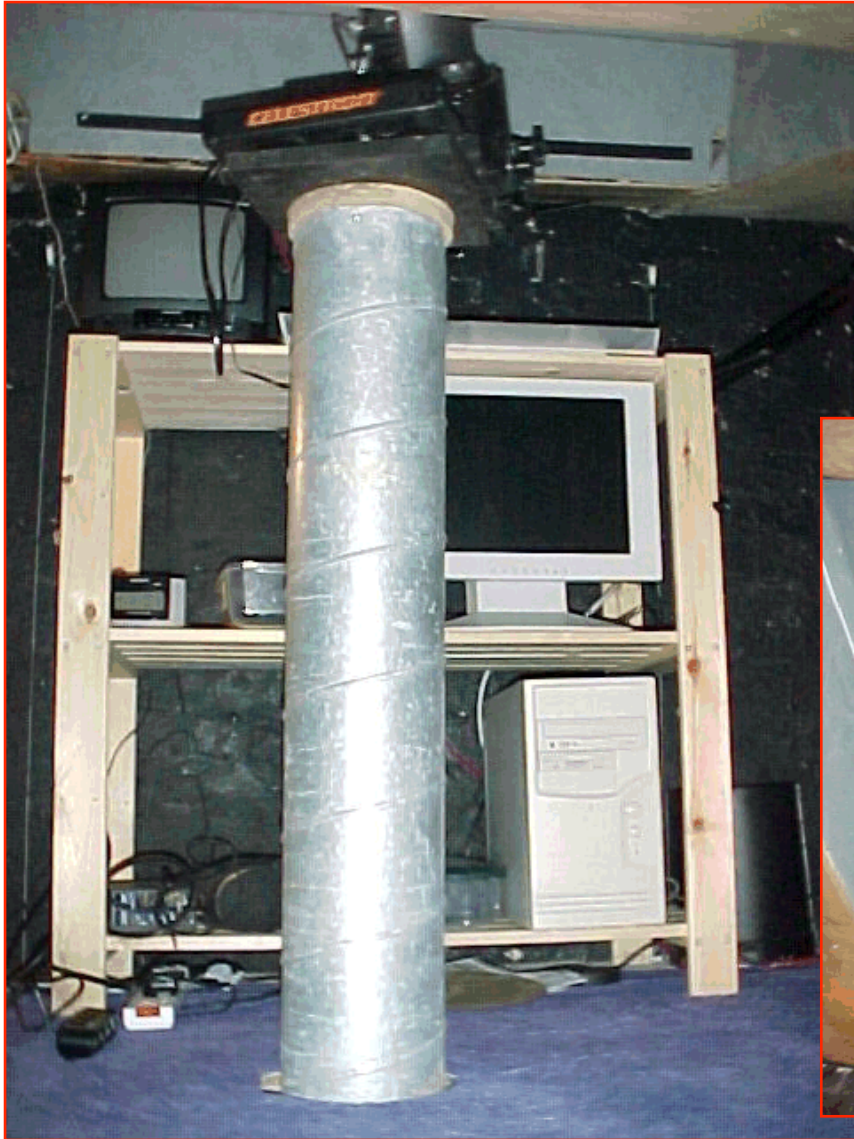
Neighbours' view



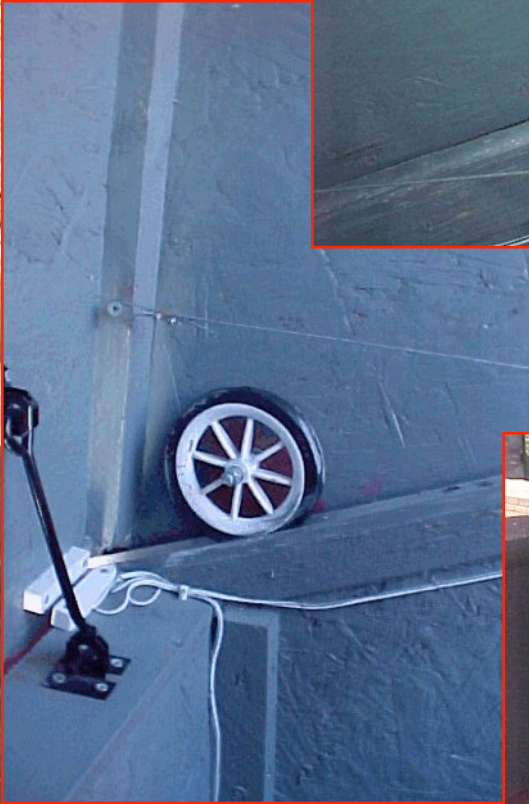
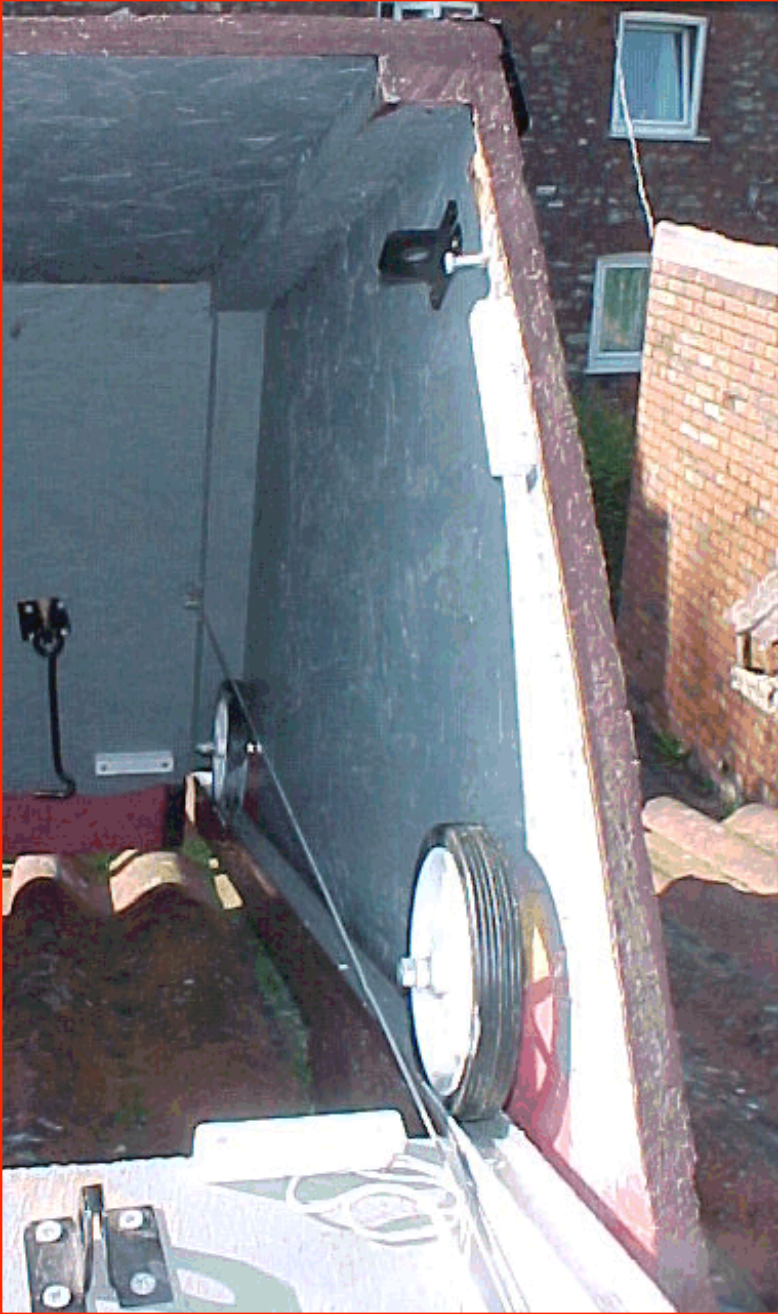
Elevation Cross Section



Internal Views



Construction details



Fold down flap has large overlap



Roll-off roof half retracted

Conclusions

Good Points

- Set-up and clear away times reduce to less than 10 minutes.
- Being comfortable improves the image quality!
- An 8" SCT can cover the sky through a 36" square roof aperture.
- Local small lights not a problem if direct view is shielded.
- Wind shielding was very effective
- Total cost around \$500 & 40 hours of work.
- Neighbours & friends became more understanding and accommodating.
- Easier to involve newcomers to astronomy.

Lessons learnt

- crt monitors don't like the damp. Use LCD's.
- Heat off the surrounding tiled roof ruins solar observing.